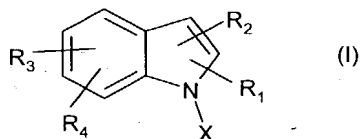
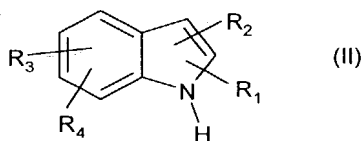


What is claimed is:

1. A method for the preparation of indole derivatives of the formula



wherein X is methyl or benzyl; and R₁, R₂, R₃ and R₄ are independently hydrogen, halogen, cyano, nitro, hydroxy, optionally substituted alkyl, alkoxy, aralkoxy, carboxy, alkoxycarbonyl, aryl or heteroaryl; or R₁ and R₂ combined together with the carbon atoms to which they are attached form a fused 6-membered aromatic ring; which method comprises reacting indoles of the formula



wherein R₁, R₂, R₃ and R₄ have meanings as defined for formula I;

- (a) with dimethyl carbonate when X is methyl; or
- (b) with dibenzyl carbonate when X is benzyl;

in the presence of a catalytic amount of a base at an ambient temperature.

2. The method according to claim 1, wherein the base is 1,4-diazabicyclo[2.2.2]octane.
3. The method according to claim 2, wherein the molar ratio of the base to the compound of formula II initially present in the reaction mixture ranges from 0.01:1 to 0.5:1.
4. The method according to claim 2, wherein X is methyl.
5. The method according to claim 4, wherein the molar ratio of the base to the compound of formula II initially present in the reaction mixture ranges from 0.05:1 to 0.15:1.
6. The method according to claim 4, wherein the ambient temperature ranges from 80°C to 100°C.
7. The method according to claim 4, wherein the reaction is carried out in the presence of an organic solvent.
8. The method according to claim 7, wherein the organic solvent is selected from the group consisting of toluene, acetonitrile, *N,N*-dimethylformamide, *N,N*-dimethylacetamide and *N*-methylpyrrolidinone.

9. The method according to claim 8, wherein the organic solvent is *N,N*-dimethylformamide.
10. The method according to claim 9, wherein the ambient temperature ranges from 90°C to 95°C.
11. The method according to claim 4, wherein the reaction is carried out in the presence of an ionic liquid.
12. The method according to claim 11, wherein the ionic liquid is tetra-*n*-butylammonium chloride.
13. The method according to claim 4, wherein the reaction is conducted under microwave irradiation at a frequency from 300 MHz to 30 GHz, and at a temperature ranging from 80°C to 300°C for a period of microwave irradiation time ranging from 1 second to 300 min.
14. The method according to claim 2, wherein X is benzyl.
15. The method according to claim 14, wherein the molar ratio of the base to the compound of formula II initially present in the reaction mixture ranges from 0.05:1 to 0.35:1.
16. The method according to claim 14, wherein the ambient temperature ranges from 90°C to 150°C.
17. The method according to claim 14, wherein the reaction is carried out in the presence of an organic solvent.
18. The method according to claim 17, wherein the organic solvent is selected from the group consisting of toluene, acetonitrile, *N,N*-dimethylformamide, *N,N*-dimethylacetamide and *N*-methylpyrrolidinone.
19. The method according to claim 18, wherein the organic solvent is *N,N*-dimethylacetamide.
20. The method according to claim 19, wherein the ambient temperature is 135°C.
21. The method according to claim 14, wherein the reaction is carried out in the presence of an ionic liquid.

22. The method according to claim 21, wherein the ionic liquid is tetra-*n*-butylammonium chloride.

23. The method according to claim 14, wherein the process is conducted under microwave irradiation at a frequency from 300 MHz to 30 GHz, and at a temperature ranging from 80°C to 300°C for a period of microwave irradiation time ranging from 1 second to 300 min.